

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/049,587  
Source: JFW16  
Date Processed by STIC: 12/12/2005

# ***ENTERED***



IFW16

## RAW SEQUENCE LISTING

DATE: 12/12/2005

PATENT APPLICATION: US/10/049,587

TIME: 10:03:51

Input Set : A:\Nihw-2-1.app

Output Set: N:\CRF4\12122005\J049587.raw

3 <110> APPLICANT: Brenneman, Douglas E.  
 4 Gozes, Illana  
 5 Spong, Catherine Y.  
 6 Pinhasov, Albert  
 7 Giladi, Eliezer  
 8 Ramot University Authority for Applied Research &  
 9 Industrial Development Ltd.  
 10 The Government of the United States  
 11 as represented by The Secretary of the  
 12 Department of Health and Human Services  
 14 <120> TITLE OF INVENTION: Orally Active Peptides That Prevent Cell Damage  
 and  
 15 Death  
 17 <130> FILE REFERENCE: 15280W-002100US  
 19 <140> CURRENT APPLICATION NUMBER: US 10/049,587  
 20 <141> CURRENT FILING DATE: 2002-02-12  
 22 <150> PRIOR APPLICATION NUMBER: US 60/149,956  
 23 <151> PRIOR FILING DATE: 1999-08-18  
 25 <150> PRIOR APPLICATION NUMBER: WO PCT/US00/22861  
 26 <151> PRIOR FILING DATE: 2000-08-17  
 28 <160> NUMBER OF SEQ ID NOS: 19  
 30 <170> SOFTWARE: PatentIn Ver. 2.1  
 32 <210> SEQ ID NO: 1  
 33 <211> LENGTH: 9  
 34 <212> TYPE: PRT  
 35 <213> ORGANISM: Artificial Sequence  
 37 <220> FEATURE:  
 38 <223> OTHER INFORMATION: Description of Artificial Sequence:activity  
 39 dependent neurotrophic factor I (ADNF I) active  
 40 core site, ADNF-9, SAL  
 42 <400> SEQUENCE: 1  
 43 Ser Ala Leu Leu Arg Ser Ile Pro Ala  
 44 1 5  
 47 <210> SEQ ID NO: 2  
 48 <211> LENGTH: 8  
 49 <212> TYPE: PRT  
 50 <213> ORGANISM: Artificial Sequence  
 52 <220> FEATURE:  
 53 <223> OTHER INFORMATION: Description of Artificial Sequence:activity  
 54 dependent neuroprotective protein (ADNP or ADNF  
 55 III) active core site, ADNF III-8, NAP  
 57 <400> SEQUENCE: 2  
 58 Asn Ala Pro Val Ser Ile Pro Gln  
 59 1 5

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Input Set : A:\Nihw-2-1.app

Output Set: N:\CRF4\12122005\J049587.raw

62 &lt;210&gt; SEQ ID NO: 3

63 &lt;211&gt; LENGTH: 89

64 &lt;212&gt; TYPE: PRT

65 &lt;213&gt; ORGANISM: Artificial Sequence

67 &lt;220&gt; FEATURE:

68 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence:ADNF I

polypeptide

70 &lt;220&gt; FEATURE:

71 &lt;221&gt; NAME/KEY: MOD\_RES

72 &lt;222&gt; LOCATION: (1..40)

73 &lt;223&gt; OTHER INFORMATION: Xaa = any amino acid, Xaa at positions 1-40 may be

74 present or absent

76 &lt;220&gt; FEATURE:

77 &lt;221&gt; NAME/KEY: MOD\_RES

78 &lt;222&gt; LOCATION: (50..89)

79 &lt;223&gt; OTHER INFORMATION: Xaa = any amino acid, Xaa at positions 50-89 may

be

80 present or absent

82 &lt;400&gt; SEQUENCE: 3

W--&gt; 83 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

84 1 5 10 15

W--&gt; 86 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

87 20 25 30

W--&gt; 89 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ser Ala Leu Leu Arg Ser Ile Pro

90 35 40 45

W--&gt; 92 Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

93 50 55 60

W--&gt; 95 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

96 65 70 75 80

W--&gt; 98 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

99 85

102 &lt;210&gt; SEQ ID NO: 4

103 &lt;211&gt; LENGTH: 88

104 &lt;212&gt; TYPE: PRT

105 &lt;213&gt; ORGANISM: Artificial Sequence

107 &lt;220&gt; FEATURE:

108 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence:ADNF III

polypeptide

110 &lt;220&gt; FEATURE:

111 &lt;221&gt; NAME/KEY: MOD\_RES

112 &lt;222&gt; LOCATION: (1..40)

113 &lt;223&gt; OTHER INFORMATION: Xaa = any amino acid, Xaa at positions 1-40 may

be

114 present or absent

116 &lt;220&gt; FEATURE:

117 &lt;221&gt; NAME/KEY: MOD\_RES

118 &lt;222&gt; LOCATION: (49..88)

119 &lt;223&gt; OTHER INFORMATION: Xaa = any amino acid, Xaa at positions 49-88 may

be

120 present or absent

122 &lt;400&gt; SEQUENCE: 4

W--&gt; 123 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

124 1 5 10 15

W--> 126 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

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Input Set : A:\Nihw-2-1.app

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```

      127              20              25              30
W--> 129 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asn Ala Pro Val Ser Ile Pro Gln
      130              35              40              45
W--> 132 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      133              50              55              60
W--> 135 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      136 65              70              75              80
W--> 138 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      139              85
142 <210> SEQ ID NO: 5
143 <211> LENGTH: 5
144 <212> TYPE: PRT
145 <213> ORGANISM: Artificial Sequence
147 <220> FEATURE:
148 <223> OTHER INFORMATION: Description of Artificial Sequence:1-R in formula
149     for ADNF I polypeptide
151 <400> SEQUENCE: 5
152 Val Leu Gly Gly Gly
153 1              5
156 <210> SEQ ID NO: 6
157 <211> LENGTH: 10
158 <212> TYPE: PRT
159 <213> ORGANISM: Artificial Sequence
161 <220> FEATURE:
162 <223> OTHER INFORMATION: Description of Artificial Sequence:1-R in formula
163     for ADNF I polypeptide
165 <400> SEQUENCE: 6
166 Val Glu Glu Gly Ile Val Leu Gly Gly Gly
167 1              5              10
170 <210> SEQ ID NO: 7
171 <211> LENGTH: 5
172 <212> TYPE: PRT
173 <213> ORGANISM: Artificial Sequence
175 <220> FEATURE:
176 <223> OTHER INFORMATION: Description of Artificial Sequence:3-R or 4-R in
177     formula for ADNF III polypeptide
179 <400> SEQUENCE: 7
180 Leu Gly Leu Gly Gly
181 1              5
184 <210> SEQ ID NO: 8
185 <211> LENGTH: 8
186 <212> TYPE: PRT
187 <213> ORGANISM: Artificial Sequence
189 <220> FEATURE:
190 <223> OTHER INFORMATION: Description of Artificial Sequence:3-R in formula
191     for ADNF III polypeptide
193 <400> SEQUENCE: 8
194 Ser Val Arg Leu Gly Leu Gly Gly
195 1              5

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Input Set : A:\Nihw-2-1.app

Output Set: N:\CRF4\12122005\J049587.raw

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198 <210> SEQ ID NO: 9
199 <211> LENGTH: 4
200 <212> TYPE: PRT
201 <213> ORGANISM: Artificial Sequence
203 <220> FEATURE:
204 <223> OTHER INFORMATION: Description of Artificial Sequence:2-R in formula
205     for ADNF I polypeptide
207 <400> SEQUENCE: 9
208 Val Leu Gly Gly
209     1
212 <210> SEQ ID NO: 10
W--> 213 <400> SEQUENCE: 10
W--> 214 000
217 <210> SEQ ID NO: 11
218 <211> LENGTH: 5
219 <212> TYPE: PRT
220 <213> ORGANISM: Artificial Sequence
222 <220> FEATURE:
223 <223> OTHER INFORMATION: Description of Artificial Sequence:2-R in formula
224     for ADNF I polypeptide
226 <400> SEQUENCE: 11
227 Gly Val Leu Gly Gly
228     1             5
231 <210> SEQ ID NO: 12
232 <211> LENGTH: 4
233 <212> TYPE: PRT
234 <213> ORGANISM: Artificial Sequence
236 <220> FEATURE:
237 <223> OTHER INFORMATION: Description of Artificial Sequence:4-R in formula
238     for ADNF III polypeptide
240 <400> SEQUENCE: 12
241 Leu Gly Leu Gly
242     1
245 <210> SEQ ID NO: 13
246 <211> LENGTH: 5
247 <212> TYPE: PRT
248 <213> ORGANISM: Artificial Sequence
250 <220> FEATURE:
251 <223> OTHER INFORMATION: Description of Artificial Sequence:4-R in formula
252     for ADNF III polypeptide
254 <400> SEQUENCE: 13
255 Val Leu Gly Gly Val
256     1             5
259 <210> SEQ ID NO: 14
260 <211> LENGTH: 14
261 <212> TYPE: PRT
262 <213> ORGANISM: Artificial Sequence
264 <220> FEATURE:
265 <223> OTHER INFORMATION: Description of Artificial Sequence:ADNF I
polypeptide

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DATE: 12/12/2005

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TIME: 10:03:51

Input Set : A:\Nihw-2-1.app

Output Set: N:\CRF4\12122005\J049587.raw

267 &lt;400&gt; SEQUENCE: 14

268 Val Leu Gly Gly Gly Ser Ala Leu Leu Arg Ser Ile Pro Ala

269 1 5 10

272 &lt;210&gt; SEQ ID NO: 15

273 &lt;211&gt; LENGTH: 19

274 &lt;212&gt; TYPE: PRT

275 &lt;213&gt; ORGANISM: Artificial Sequence

277 &lt;220&gt; FEATURE:

278 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence:ADNF I

polypeptide

280 &lt;400&gt; SEQUENCE: 15

281 Val Glu Glu Gly Ile Val Leu Gly Gly Gly Ser Ala Leu Leu Arg Ser

282 1 5 10 15

284 Ile Pro Ala

287 &lt;210&gt; SEQ ID NO: 16

288 &lt;211&gt; LENGTH: 13

289 &lt;212&gt; TYPE: PRT

290 &lt;213&gt; ORGANISM: Artificial Sequence

292 &lt;220&gt; FEATURE:

293 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence:ADNF I

polypeptide

295 &lt;400&gt; SEQUENCE: 16

296 Leu Gly Gly Gly Ser Ala Leu Leu Arg Ser Ile Pro Ala

297 1 5 10

300 &lt;210&gt; SEQ ID NO: 17

301 &lt;211&gt; LENGTH: 12

302 &lt;212&gt; TYPE: PRT

303 &lt;213&gt; ORGANISM: Artificial Sequence

305 &lt;220&gt; FEATURE:

306 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence:ADNF I

polypeptide

308 &lt;400&gt; SEQUENCE: 17

309 Gly Gly Gly Ser Ala Leu Leu Arg Ser Ile Pro Ala

310 1 5 10

313 &lt;210&gt; SEQ ID NO: 18

314 &lt;211&gt; LENGTH: 11

315 &lt;212&gt; TYPE: PRT

316 &lt;213&gt; ORGANISM: Artificial Sequence

318 &lt;220&gt; FEATURE:

319 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence:ADNF I

polypeptide

321 &lt;400&gt; SEQUENCE: 18

322 Gly Gly Ser Ala Leu Leu Arg Ser Ile Pro Ala

323 1 5 10

326 &lt;210&gt; SEQ ID NO: 19

327 &lt;211&gt; LENGTH: 10

328 &lt;212&gt; TYPE: PRT

329 &lt;213&gt; ORGANISM: Artificial Sequence

331 &lt;220&gt; FEATURE:

332 &lt;223&gt; OTHER INFORMATION: Description of Artificial Sequence:ADNF I

polypeptide

334 &lt;400&gt; SEQUENCE: 19

335 Gly Ser Ala Leu Leu Arg Ser Ile Pro Ala

336	1	5	10
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RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/049,587

DATE: 12/12/2005  
TIME: 10:03:52

Input Set : A:\Nihw-2-1.app  
Output Set: N:\CRF4\12122005\J049587.raw

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220>

to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; Xaa Pos. ~~1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22~~

Seq#:3; Xaa Pos. ~~23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,50~~

Seq#:3; Xaa Pos. ~~51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69~~

Seq#:3; Xaa Pos. ~~70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87,88~~

Seq#:3; Xaa Pos. ~~89~~

Seq#:4; Xaa Pos. ~~1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22~~

Seq#:4; Xaa Pos. ~~23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38,39,40,49~~

Seq#:4; Xaa Pos. ~~50,51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68~~

Seq#:4; Xaa Pos. ~~69,70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85,86,87~~

Seq#:4; Xaa Pos. ~~88~~

## VERIFICATION SUMMARY

DATE: 12/12/2005

PATENT APPLICATION: US/10/049,587

TIME: 10:03:52

Input Set : A:\Nihw-2-1.app

Output Set: N:\CRF4\12122005\J049587.raw

L:83 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
L:86 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:16  
L:89 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:32  
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:48  
L:95 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:64  
L:98 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:80  
L:123 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0  
L:126 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:16  
L:129 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:32  
L:132 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:48  
L:135 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:64  
L:138 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:80  
L:213 M:283 W: Missing Blank Line separator, <400> field identifier  
L:214 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (10) SEQUENCE: